

Shumonto Pradhan

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Education

Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur, C.G <i>Bachelor of Technology - Information Technology</i>	Sept 2023 – Present CGPA: 8.5
Holy Cross Hr. Secondary School, Dimapur, Nagaland <i>Class 12 - NBSE</i>	Apr 2020 – Apr 2022 Percentage: 87.2%
Govt. Hr Secondary School, Jalukie, Nagaland <i>Class 10 - NBSE</i>	Apr 2018 – Apr 2020 Percentage: 88.0%

Experience

AI/ML Research Intern <i>Maulana Azad National Institute of Technology (MANIT)</i>	June 2025 – July 2025 Bhopal, Madhya Pradesh
<ul style="list-style-type: none">Developed and optimized a real-time violence detection system by fine-tuning YOLOv8 on a custom dataset of 5,000+ manually annotated images, achieving 96% mAP through extensive hyperparameter tuning on Google Colab.Engineered a multi-modal safety framework integrating computer vision with a CNN-LSTM audio classifier for emergency keyword detection, achieving 94% precision in diverse real-world acoustic environments.Optimized the inference pipeline using TensorRT and OpenCV's DNN module, reducing latency by 40% and enabling 30 FPS processing suitable for edge deployment in surveillance systems.Designed and implemented a complete MLOps pipeline with automated data augmentation, model versioning, and performance monitoring, improving model robustness by 32% on challenging test scenarios.	

Projects

IntelliLearn - AI-Powered Learning Platform <i>React.js, Node.js, Express.js, MongoDB, Google Gemini AI, Tailwind CSS</i>	Oct 2025 – Dec 2025
<ul style="list-style-type: none">Built full-stack learning platform with JWT authentication, PDF document management, and embedded PDF viewer for direct document reading.Integrated Google Gemini AI for intelligent context-aware Q&A, automated document summarization, and detailed concept explanations with real-time responses.Developed AI-powered quiz generator with customizable question counts and auto-generated flashcards with flip animations.Implemented progress tracking dashboard, favorites system for flashcards, and responsive mobile-first UI using Tailwind CSS.Added real-time collaboration features using Socket.io for shared study sessions and live document annotation.	
SmartRent - Property Rental Management Platform <i>MERN Stack (MongoDB, Express.js, React.js, Node.js), JWT, Map APIs</i>	feb 2025 – Mar 2025
<ul style="list-style-type: none">Developed full-stack rental platform with user authentication, property listing management, and booking system.Implemented advanced search with filters, geolocation services using Map APIs, and real-time booking notifications.Built admin dashboard for property management, user analytics, and booking tracking with responsive design.	
SafeHer - Women Safety Web Application <i>React.js, Node.js, Express.js, MongoDB, WebRTC, JWT, Socket.io</i>	sept 2024 – Nov 2024
<ul style="list-style-type: none">Created safety platform with real-time location tracking, emergency alerts, and safe route planning using Map APIs.Integrated WebRTC for live video streaming and SOS notifications to emergency contacts.Implemented geofencing, automatic check-ins, and fallback SMS alerts for offline scenarios.	

Technical Skills

- Programming Languages:** Java, C++, Python, JavaScript, SQL.
- Web Development:** React.js, Node.js, Express.js, MongoDB, REST APIs, HTML/CSS, Tailwind CSS.
- Tools & Platforms:** Git, GitHub, Linux, VS Code, Postman, Docker, Google Colab.
- Libraries & Frameworks:** OpenCV, NumPy, Pandas, scikit-learn, Socket.io, JWT.
- Concepts:** Data Structures & Algorithms, Object-Oriented Programming, Database Management, Computer Networks.

Achievements

- Solved 400+ data structure and algorithm problems on LeetCode and GeeksforGeeks with consistent contest participation.
- Finalist in University Coding Championship, solved 5/6 algorithmic problems under time pressure.
- First university-wide participant to complete Google GenAI Study Jams 2024, awarded exclusive developer swags.
- Active Codeforces contestant dedicated to continuous improvement in algorithmic thinking and competitive programming.
- Achieved Top 1% rank in NBSE Class 12 exams; awarded ASPIRE Scholarship worth 80,000 annually.